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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,724	06/14/2002	Ikuo Nishimoto	082377-00000US	6929

7590 12/11/2006

Joe Liebeschuetz
Townsend & Townsend & Crew
8th Floor
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San Francisco, CA 94111-3834

EXAMINER

CHERNYSHEV, OLGA N

ART UNIT	PAPER NUMBER
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1649

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,724

Applicant(s)

NISHIMOTO, IKUO

Examiner

Olga N. Chernyshev

Art Unit

1649

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-8, 13, 20-22, 27-30, 35-38, 43 and 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-8, 13, 20, 28 and 36 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 21-22, 27, 29-30, 35, 37-38, 43 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: copy of the sequence alignment.

DETAILED ACTION

Response to amendment

1. Applicant's submission after final filed on October 31, 2006 has been entered. Claim 5 has been amended as requested in the amendment filed on October 31, 2006. Following the amendment, claims 1, 2, 4-8, 13, 20-22, 27-30, 35-38, 43 and 45 are pending in the instant application.

Claims 1, 2, 4-8, 13, 20-22, 27-30, 35-38, 43 and 45 are under examination in the instant office action.

2. During further examination and consideration, the relevant art of record has been discovered. Therefore, the finality of the previous Office action is withdrawn and the new grounds of rejection(s) are as follows.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 6, 7, 8, 13, 20, 28 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Paznekas et al., 1997 (Biochem. Biophys. Res. Comm., 238, pp.1-6) and Dixon et al., 1997 (Hum. Mol. Gen., 6, No. 5, pp.727-37).

Claims 1, 5, 6, 7, 8, 13, 20, 28, 36 and 63 encompass a polypeptide of SEQ ID NO: 63, polynucleotide encoding a polypeptide of SEQ ID NO: 63, vectors, host cells and methods of

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recombinant production of the polypeptide of SEQ ID NO: 63. Publications of Paznekas et al. and Dixon et al. disclose polypeptide and cDNA sequences, which have 100% identity to the instant claimed polypeptide of SEQ ID NO: 63 and encoding DNA, see copy of the sequence alignment attached to the instant office action. Thus the claimed subject matter of claims 1, 5, 6, 7, 8, 13, 20, 28, 36 and 63 is fully anticipated by these references.

Claim Objections

5. Claims 2, 4, 22, 27, 30, 35, 38, 43 and 45 are objected to for reciting non-elected subject matter. Applicant's attention is directed to paper filed on October 16, 2003, in which election of a polypeptide of SEQ ID NO: 5 was made. During further examination of the instant application, polypeptide of SEQ ID NO: 5 was found to be novel, therefore the sequence search of the generic sequence of a polypeptide of SEQ ID NO: 63 was made and at that time the polypeptide of SEQ ID NO: 63 was considered free of prior art. Because claim 1 was considered free of prior art, dependent claims reciting plurality of sequences, were randomly searched and consequently considered free of prior art and allowable. However, at present, in view of the newly discovered references disclosing the polypeptide of the generic claim (SEQ ID NO: 63, see rejection of record in section 4 of the instant office action), only polypeptides of SEQ ID NO: 5, 33 and 101, as elected and previously searched, but not the full scope of the claims reciting plurality of different sequences, are considered to be allowable.

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Conclusion

6. Claims 1, 5, 6, 7, 8, 13, 20, 28 and 36 are rejected. Claims 2, 4, 22, 27, 30, 35, 38, 43 and 45 are objected to. Claims 21, 29 and 37 are objected to for being dependent from rejected claims but would be allowed if rewritten in independent form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga N. Chernyshev whose telephone number is (571) 272-0870. The examiner can normally be reached on 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet L. Andres can be reached on (571) 272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Olga N. Chernyshev, Ph.D.
Primary Examiner
Art Unit 1649

November 27, 2006

RESULT 7

TCOF_MOUSE

ID TCOF_MOUSE STANDARD; PRT; 1320 AA.

AC 008784; 008857;

DT 02-FEB-2004, integrated into UniProtKB/Swiss-Prot.

DT 01-JUL-1997, sequence version 1.

DT 07-FEB-2006, entry version 37.

DE Treacle protein (Treacher Collins syndrome protein homolog).

GN Name=Tcof1;

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

OC Muroidea; Muridae; Murinae; Mus.

OX NCBI_TaxID=10090;

RN [1]

RP NUCLEOTIDE SEQUENCE [MRNA].

RC TISSUE=Liver;

RX MEDLINE=97445113; PubMed=9299440; DOI=10.1006/bbrc.1997.7229;

RA Paznekas W.A., Zhang N., Gridley T., Jabs E.W.;

RT "Mouse TCOF1 is expressed widely, has motifs conserved in nucleolar phosphoproteins, and maps to chromosome 18.";

RL Biochem. Biophys. Res. Commun. 238:1-6(1997).

RN [2]

RP NUCLEOTIDE SEQUENCE [MRNA], AND DEVELOPMENTAL STAGE.

RX MEDLINE=97301769; PubMed=9158147; DOI=10.1093/hmg/6.5.727;

RA Dixon J., Hovanes K., Shiang R., Dixon M.J.;

RT "Sequence analysis, identification of evolutionary conserved motifs and expression analysis of murine tcof1 provide further evidence for a potential function for the gene and its human homologue, TCOF1.";

RL Hum. Mol. Genet. 6:727-737(1997).

RN [3]

RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] OF 1-1314.

RC STRAIN=C57BL/6; TISSUE=Brain;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";

RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

RN [4]

RP PHOSPHORYLATION SITE SER-1191.

RX PubMed=14729942; DOI=10.1074/mcp.D300003-MCP200;

RA Shu H., Chen S., Bi Q., Mumby M., Brekken D.L.;

RT "Identification of phosphoproteins and their phosphorylation sites in the WEHI-231 B lymphoma cell line.";

RL Mol. Cell. Proteomics 3:279-286(2004).

CC -!- FUNCTION: May be involved in nucleolar-cytoplasmic transport. May play a fundamental role in early embryonic development, particularly in development of the craniofacial complex.

CC -!- SUBCELLULAR LOCATION: Nuclear; nucleolar (Potential).

CC -!- TISSUE SPECIFICITY: Ubiquitous in adult and embryonic tissues.

CC -!- DEVELOPMENTAL STAGE: Expression elevated at 11 dpc when the branchial arches and facial swellings are present.

CC -!- SIMILARITY: Contains 1 Lish domain.

CC -----

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CC -----

DR EMBL; AF001794; AAB71347.1; -; mRNA.

DR EMBL; U81030; AAB60933.1; -; mRNA.

DR EMBL; BC060105; AAH60105.1; -; mRNA.

DR PIR; JC5630; JC5630.
 DR Ensembl; ENSMUSG00000024613; Mus musculus.
 DR MGI; MGI:892003; Tcofl.
 DR GO; GO:0042790; P:transcription of nuclear rRNA large RNA pol. . .; IMP.
 DR InterPro; IPR006594; Lish.
 DR InterPro; IPR003993; treacle.
 DR Pfam; PF03546; Treacle; 2.
 DR PRINTS; PR01503; TREACLE.
 DR SMART; SM00667; Lish; 1.
 DR PROSITE; PS50896; LISH; 1.
 KW Nuclear protein; Phosphorylation; Repeat; Transport.
 FT CHAIN 1 1320 Treacle protein.
 FT /FTid=PRO_0000072460.
 FT DOMAIN 6 38 Lish.
 FT REPEAT 212 295 1.
 FT REPEAT 296 366 2.
 FT REPEAT 367 436 3.
 FT REPEAT 437 505 4.
 FT REPEAT 506 550 5.
 FT REPEAT 551 624 6.
 FT REPEAT 625 680 7.
 FT REPEAT 681 714 8.
 FT REPEAT 715 774 9.
 FT REPEAT 775 839 10.
 FT REGION 212 839 10 X approximate tandem repeats.
 FT COMPBias 195 198 Poly-Ser.
 FT COMPBias 216 272 Ala-rich.
 FT COMPBias 253 272 Poly-Ala.
 FT COMPBias 880 885 Poly-Ser.
 FT COMPBias 1179 1314 Lys-rich.
 FT COMPBias 1200 1205 Poly-Lys.
 FT COMPBias 1270 1277 Poly-Lys.
 FT COMPBias 1280 1288 Poly-Lys.
 FT COMPBias 1307 1314 Poly-Lys.
 FT MOD_RES 853 853 Phosphoserine (By similarity).
 FT MOD_RES 1191 1191 Phosphoserine.
 FT MOD_RES 1216 1216 Phosphoserine (By similarity).
 FT MOD_RES 1303 1303 Phosphoserine (By similarity).
 FT CONFLICT 35 35 G -> A (in Ref. 2).
 FT CONFLICT 128 145 Missing (in Ref. 2).
 SQ SEQUENCE 1320 AA; 135001 MW; 34D87F5F5D300758 CRC64;

Query Match 100.0%; Score 23; DB 1; Length 1320;
 Best Local Similarity 40.0%; Pred. No. 1.5e+03;
 Matches 4; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 PXXXXLTXXP 10
 | | |
 Db 425 PAAATLTSP 434